## **RAW SEQUENCE LISTING**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/646,664A

Source: 1600 - EFS

Date Processed by STIC: 7-25-06

# ENTERED



#### IFW16

**RAW SEQUENCE LISTING**PATENT APPLICATION: **US/10/646,664A**DATE: 07/25/2006
TIME: 07:12:01

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Output Set: N:\CRF4\07252006\J646664\(\overline{A}\).raw

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3 <110> APPLICANT: Shen, Ben
 5 <120> TITLE OF INVENTION: Methods of directing C-O bond formation utilizing a type II
         polyketide synthase system
 8 <130> FILE REFERENCE: 054030-0031
10 <140> CURRENT APPLICATION NUMBER: 10/646,664A
11 <141> CURRENT FILING DATE: 2003-08-22
13 <150> PRIOR APPLICATION NUMBER: 60/405,245
14 <151> PRIOR FILING DATE: 2002-08-22
16 <160> NUMBER OF SEQ ID NOS: 20
18 <170> SOFTWARE: PatentIn version 3.3
20 <210> SEO ID NO: 1
21 <211> LENGTH: 15559
22 <212> TYPE: DNA
23 <213> ORGANISM: Streptomyces griseus
25 <400> SEQUENCE: 1
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                                                                         120
30 gtggacgcgg gggctctgtg agcaaggagc acggcccggg gaagggcgaa ccgcccctgc
                                                                         180
32 eggaacaget getegeeece geggegegee eetgggeeee eggeeeeegg gaegegetgg
                                                                         240
34 teacegggat ggggttetge etgeceggtg egggegaega geeggtgege aeggeegage
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36 aggtetggge ggeegeetee acegggaeea gteatgtega aegegaegge tteeaeeaeg
                                                                         360
38 ggaccgtacg cggtgcccgc gaggcgttcg gagagctgct gccggacata ccggcccgct
                                                                         420
40 atotgogoag ctacgoogac gtocacotot acgggotgat otogotggoo gaggootgoo
                                                                         480
42 gggacgccgg actcgattac gggaaaggcg agttgagagg ggcggacgtg ctgaccgccc
                                                                         540
                                                                         600
44 gggccggggt ggacagcaac tacgacagct accgcgcctg gcacgacgcc gatccggcga
46 cggtcactcc ctcggacgcc aagtccctct tcgtacggct cctggtggcg ggcacctcca
                                                                         660
48 gcgacgtcgg ccccgtccag gccgcqctgc tcggttccac cggcgccaac tacacggtga
                                                                         720
50 gctgcggctg cgcctcctcc tcggtgctgc tcggcatcgc ccgcatgatg atcgcctccg
                                                                         780
52 gccagagcga cctggtcgtg gtcaccgggg tggaccgctt cgacaccgaa cgggtgctgc
                                                                         840
                                                                         900
54 acggacaccg gttgcgcgag gtcgtcgagc gcgagggcgt gacggtgcgg cacaacagcg
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56 atccgccggc agcaccccgt cacgaccggc cgatgcgccc gtacgacgcg gcgggcgact
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58 gcatgaacta cggcgacggg tcggtgaccc tgatcctgga gagccgcgaa cacgccgccg
60 egeggggege eeggaegeae ggggeggtee teggeeagge caccaegege gggggeetga
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62 acagegeegt egecategae aceggeggta eggggetgge egaageggee egecgeeee
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74 tgggcttcga ccgggccctg agcttcaact accaggtggg cggggtcaac agcgcactgc
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                                                                        1560
76 tgctgggagg tggcgatgtc tgctgagctg cctctgctgc ggctttccgg cgccgggttc
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78 gtcctgccgg ggccggacgg ccgcgcctgc accgacctgg acaccttctg gggtgtggtg
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1680

RAW SEQUENCE LISTING DATE: 07/25/2006 TIME: 07:12:01 PATENT APPLICATION: US/10/646,664A

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		gcgccgggct					
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00	stagaataa	cggagaccga	gegetaetae	geeetggeee	gggacgaggg	ggtcgccgcc	1920
90 (	acatacas	agtactggct	caacgggacc	ccgcccagtg	tggtgggcac	cgtggcctcc	1980
92 (	ggeeteegge	tgccctgcca	gaegetgage	grggcgggcr	cctgcaatgt	ggcgctgcgg	2040
		tcgtccagca					2100
		ccacggtgga					2160
		cgtcctcgct					2220
		acgccaccgg					2280
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		ggcgcggcct					2460
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		: tgcggctcac					2580
		aactcctcgg					2640
114	gccaacaccc	: tggtcccgta	cgcgggtctg	ccgggcgacc	cggtgctcgc	gggcggcctg	2700
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118	atggtcatcg	aatacgaagg	cggcgacttg	ccatgaccca	cgttcacagc	acggcgacgc	2820
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		cgggggcgac					2940
		ccccgaggcc					3000
		cccggccgcc					3060
		gggcctggac					3120
		acggctcgtc					3180
		gtacgcgcgg					3240
		gcgcggcgtc					3300
		gtccgccgag					3360
		cgccgatgtc					3420
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		cccgccgacg					3540
		gccggtgagc					3600
		categgeegg					3660
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		cggcatccgc					4140
		ggggcccgac					4200
		gcacgaggtg					4260
		tgccgtgctg					4320
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							4500
		gggatcgggg					4560
		gggcggcggg					
τ / β	eggeggaace	gcgctgtcgc	regecetgga	cctggccggg	eegggtgeec	cogoogaggc	4620

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		gtcgtgaaca					4860
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		tcggcgagcc					5160
		gagggcgccg					5220
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		ccgaaggacc					5340
		gtcttgccac					5400
		acacccgggg					5460
		ggcccgacgg					5520
210	gacgggaacg	tggccatggc	gggcacctcg	taccaggcga	tcgtccagtg	gctggccgcc	5580
		cgccgcacct					5640
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		tcgtgcagct					5820
		tcgacttcga					5880
		tggccgacta					5940
224	ggctggtacg	acgtgttctc	ccacggcacg	atcgagctgc	accgcgccgt	gcgcgccctg	6000
		cgggacggca					6060
		agggcgaggt					6120
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232	cgggactccg	gcggggacgt	gcggtatttc	ctcttcggcg	atgacgcctg	gcaccgggcc	6240
		cgccgcccga					6300
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		cgctgctcgt					6660
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264	tgcccaacgq	acccgacgcg	ctgcgcacct	ggtacggggt	caacctggcg	ggcgcgatcc	7200
266	tggtgccqct	caacatcgcc	taccggggtg	cgatcctgcg	tcaggtgatc	gccgacagcg	7260
268	gggccgaggt	gctgatctgc	cggccatcac	tagcaaccca	gctggaggat	teggacgacg	7320
270	cggtgggggc	ggtgcgcacg	gtggtcctac	tgccgaaacc	cqaqqacqcq	gcccaggacg	7380
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284		cctgtgcacg					7800
286	cgctgccgca	ggacaccgcg	cacccgttgc	gggcggccta	cgtcatcccg	ttcaccgagg	7860
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	acggcgaggc						8100
	acctcggccg						8160
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	tccgcaggcg						8280
	cgggggtgct						8340
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	ccaggaagca						8640
314		gacttcgccg					8700
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	cccggctgca						9840
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364	tcacccgggc	casacaacac	gacctagagg	tctcccacac	cttcatacaa	ctgatgccct	10200
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370	tgacccgcgc	gatcaaccca	toccoccact	accdddtcda	gaaggggaa	cttctcctct	10320
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RAW SEQUENCE LISTING DATE: 07/25/2006 PATENT APPLICATION: US/10/646,664A TIME: 07:12:01

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	aactggaggc						10860
	acgaggcggt						10920
	tcaccgagac						10980
392	cctcgctcgc	cggcctgttc	aacgggtacg	tggagcagac	cgaggcgctg	gtggccgcct	11040
394		gcgcgccgcc					11100
	cgttctcttc						11160
	gaccgtgaac						11220
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404	tgtcttctcc	gcctcgttct	gccggtactt	cggcgcctcg	cacaccgcgt	accgcgacgc	11400
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412	acgggacgtg	cgcgaccgga	tccacgtctg	ggccgggatc	tccctgcgcg	accccgccgc	11640
414	cgcgctgcgg	gagctggagc	ggtcgctggc	ggccggggcg	accgggctgt	gcgtcatccc	11700
416	cttcctggac	ggcaccgacc	cggccgaccc	gaggttcgcc	ccggtctggg	acgccgcggc	11760
	cgaggcgcgg						11820
	cggcctgggc						11880
422	cgtcgccggg	cacgcgggct	ggcccgatgt	gcaggagatg	ctgctcacgg	ccgcccggca	11940
424	ccccggggtc	ttcctggagt	tctcctcgca	ccggccccgg	cacatgtcca	agcccggctc	12000
426	gggctgggag	cccctgctgc	accacgcccg	ggggatggcc	cgcgaccggg	tcatgttcgg	12060
	cacctcgacc						12120
430	cccgctcccc	gccgacgtgg	tcgccgcctg	gctctcgggc	aacgcggagg	cgctggtcgc	12180
432	ccgtgcggcc	ggġacccacc	ggggctgagc	cgcgccggga	gccctccgga	tgatgcggac	12240
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	tgatcacggg						13080
462	tcggctgacc	ggccgatcgg	cggttcgccg	cccggccggc	cgggctgttc	agacccagtc	13140
	ccgccgcgcg						13200
	ggagacgggc						13260
	gcagcggaag						13320
	atagcggtgg						13380
472	cagttcgctc	gacgcgcaca	ccgggcacag	cagccgccgg	aacgaggcgg	tgccgcacca	13440

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 07/25/2006 PATENT APPLICATION: US/10/646,664A TIME: 07:12:02

Input Set : N:\efs\10646664A\_efs\NEW\_SEQLIST\_ST25.txt

Output Set: N:\CRF4\07252006\J646664A.raw

### Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:8,9,10,11,12,13,14,15,16,17,18,19,20

#### VERIFICATION SUMMARY

PATENT APPLICATION: US/10/646,664A

DATE: 07/25/2006 TIME: 07:12:02

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Output Set: N:\CRF4\07252006\J646664A.raw

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L:1104 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:8
L:1122 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:9
L:1140 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:10
L:1158 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:11
L:1163 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:11
L:1181 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:12
L:1186 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:12
L:1204 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:12
L:1222 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:14
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L:1263 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:15
L:1281 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:16
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L:1283 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:16
L:1281 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:16
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L:1335 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:18
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